discontinuations and death. Main outcomes were quality adjusted life years (QALY) and costs. Univariate and probabilistic sensitivity analyses (PSA) were conducted on the incremental cost-effectiveness ratio (ICER). **RESULTS:** In the base-case analysis, apixaban treatment compared to VKAs has an ICER well below an informal minimal willingness-to-pay threshold of €20,000/QALY for The Netherlands (i.e. around € 7,000/QALY). PSA showed that the results of the base-case analysis were quite robust. Potentials exist for apixaban to be dominant over the other NOACs, rivaroxaban and dabigatran depending on hazard ratios, risks for complications and local price levels. patients in The Netherlands. **CONCLUSIONS:** In patients with AF, we found apixaban to be a cost-effective option in The Netherlands, compared to VKAs.

PCV104

A SOCIETAL PERSPECTIVE COST-UTILITY ANALYSIS OF RIVAROXABAN COMPARED WITH ENOXAPARIN SODIUM IN PATIENTS UNDERGOING TOTAL HIP OR TOTAL KNEE REPLACEMENT SURGERY

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OBJECTIVES: Several cost-effectiveness analyses exist that compare rivaroxaban with enoxaparin sodium as thrombosis prophylaxis in patients undergoing total hip replacement (THR) or total knee replacement (TKR) surgery. However, none of these refers to a societal perspective, and thus indirect costs have so far not yet been included. The objective of this research was to conduct a cost-utility analysis from the German societal perspective, based on a life-time horizon. **METHODS:** A decision-tree was used to calculate the short term consequences of treatmentby classifying whether subjects experienced a deep a vein thrombosis, a pulmonary embolism, a major bleeding, death due to the surgery, or no event. Furthermore, we designed a Markov model to quantify the long-term consequences. The main health effect was based on the RECORD 1 and RECORD 3 trials. A semi-micro simulation approach was applied to reflect the age and gender distribution of the target population. Probabilistic, deterministic and structural sensitivity analyses were performed to assess the robustness of the results. **RESULTS:** Rivaroxaban dominated enoxaparin sodium in the case of TKR. This dominance was robust within sensitivity analysis. In contrast, the point estimate of the cost-effectiveness ratio in the case of THR was €867,018 per quality-adjusted life year (QALY). However, there was a wide variation within the probabilistic sensitivity analysis: the dots were substantially scattered over three quadrants of the cost-effectiveness plane. Compared to previous analyses, the selection of effectiveness data seems to have a significant impact of the results. **CONCLUSIONS:** Rivaroxaban was found to dominate enoxaparin sodium after TKR, whereas the evidence regarding THR is unclear. Results were similar to previous analyses from the third-party payer perspective.

PCV105

TELEMONITORING AFTER DISCHARGE FROM HOSPITAL WITH HEART FAILURE – COST-EFFECTIVENESS MODELLING OF ALTERNATIVE SERVICE DESIGNS

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OBJECTIVES: To estimate the cost-effectiveness of home telemonitoring (TM) or structured telephone support (STS) strategies versus usual care for adults recently discharged (within 28 days) after a heart failure (HF) exacerbation in England and Wales. **METHODS:** A Markov model was used to evaluate a) STS via human to machine (HM) interface, b) STS via human to human (HH) contact, and c) TM, against d) usual care. Given heterogeneity in the interventions, cost-effectiveness analysis was performed using bottom up costing scenarios regarding costs of devices, monitoring and medical care to deal with alerts. Costs and quality adjusted life years (QALYs) over a 30 year (patient lifetime) horizon were estimated based on monthly probabilities of death and monthly risks of hospitalisations (HF-related complications or other causes) estimated from clinical effectiveness parameters computed using a network meta-analysis of randomised controlled trials. **RESULTS:** Base case monthly costs per patient were: £27 for usual care, £119 for STS HM, £179 for STS HH and £175 for TM. TM was the most cost-effective strategy in the scenario using these base case costs. Compared with usual care, TM had an estimated incremental cost effectiveness ratio (ICER) of £9,552/QALY, whereas STS HH had an ICER of £63,240/QALY against TM. STS HM was dominated by usual care. Probabilistic sensitivity analysis (PSA) showed 44% chance of TM being cost-effective at a willingness to pay threshold of £20,000 per QALY, with STS HH 36%, STS HM 18% and usual care 2%, respectively. Scenario analyses performed using higher costs of usual care, higher costs of STS HH and lower costs of TM do not substantially change the conclusions. **CONCLUSIONS:** Cost-effectiveness analyses suggest TM was an optimal strategy in most scenarios, but there is considerable uncertainty in relation to clear descriptions of the interventions and robust estimation of costs.

PCV106

LIFETIME COST-EFFECTIVENESS OF ISOLATED AORTIC VALVE REPLACEMENTS ASSOCIATED WITH THE MINI-INVASIVE IMPLANTATION OF A NEW SUTURELESS AND COLLAPSED VALVE IN FRANCE AND UNITED KINGDOM

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OBJECTIVES: Mini-invasive aortic valve replacement (MiAVR) has several advantages over full sternotomy (FS), mainly less surgical trauma, decreased blood loss, lower mortality and faster recovery. Perceval S is an aortic valve which is implanted without need for suturing and a collapsed profile, thus allowing a significant reduction of cross-clamping times, an independent risk factor for worse outcomes, allowing to expand the pool of operable patients with MiAVR. **METHODS:** A patient-level simulation model fully coded in WinBugs was updated and extended to predict lifetime effectiveness and costs of isolated AVR procedures associated with this new valve in France and UK, as compared to traditional valve implants, from the cost perspective of the third party payer. Unit costs and health state-specific utilities were retrieved from official and literature sources. Two price scenarios were evaluated, one in which the sutureless valve is sold at the double, and one at the triple price of its comparator. Future costs and outcomes are discounted at a yearly 3.5% rate. **RESULTS:** In the first cost scenario, the model predicts that on average MiAVR with Perceval S instead of traditional sutured valves in FS would yield incremental 0.29 LYs (0.20 QALYs) and savings for about 3,000 € and 3,250 £, in France and UK, respectively. In the second cost scenario, Perceval S in MiAVR still remains dominant, with savings for 550 € and 740 £, in France and UK, respectively. Deterministic threshold analysis indicates that the sutureless valve would retain acceptable cost-effectiveness (at willingness-to-pay thresholds of 30,000€ and 20,000£ per QALY) as long as its price does not exceed 5.6 and 4.9 times that of the traditional valve, in France and UK, respectively. **CONCLUSIONS:** The sutureless valve in combination with MiAVR offers the opportunity to improve outcomes in isolated AVR at a reduced cost to the third party payers.

PCV107

COST UTILITY ANALYSIS OF SCREENING AND TREATMENT OF HYPERLIPIDEMIA IN CHINESE ADULTS AGED 45 AND ABOVE

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Serum total and LDL cholesterol levels are high (13.9% for borderline high LDL- cholesterol) and increasing in China. Hyperlipidemia is a main risk factor for cardiovascular and cerebrovascular diseases. Screening is one of the effective prevention methods; however, there has been no appraisal of the cost-effectiveness of blood lipid screening in China. **OBJECTIVES:** To determine the cost-utility of blood lipid screening and subsequent interventions versus no screening for the prevention and treatment of hyperlipidemia and its complication. **METHODS:** Cost utility analysis based on a Markov model was conducted for a cohort of Chinese adults aged 45 and abovefrom screening to death. Published clinical trials and epidemiological studies retrieved from electronic bibliographic databases; supplementary data obtained from CVD patients survey in China. Markov model simulated the long term effects of screening and no screening strategies from the aspects of cost and effectiveness. The model assumed a 30 year time horizon, and costs and benefits were discounted at 5%. The willingness-to-pay threshold is ¥100,000/QALY. Sensitivity analyses were conducted to evaluate assumptions of the model and to identify which model inputs had most impact on the results. **RESULTS:** Estimated costs for each quality adjusted life year (QALY) gained among no screening population were ¥6325.8, with cumulative costs of ¥77112 and cumulative utility of 12.19, and ¥5783.5 for screened population with cumulative costs of ¥72178 and cumulative utility of 12.48, respectively. The results showed the blood lipid screening was associated with increased QALY and potentially cost-saving as compared with no screening. Sensitivity analyses demonstrated robustness of the results. **CONCLUSIONS:** Based on this Markov model, blood lipid screening is likely to be cost-effective option compared with no screening for the prevention and treatment of hyperlipidemia and its complication among Chinese aged 45 and above.

PCV108

COST-EFFECTIVENESS OF DRUG-ELUTING STENTS VERSUS BARE METAL STENTS IN EGYPTIAN DIABETIC PATIENTS

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OBJECTIVES: Cost-effectiveness of Drug eluting stents (DES) versus bare metal stents (BMS) in Egyptian diabetic patients with chronic coronary artery disease from a patient perspective was evaluated over a time horizon of 3 years. **METHODS:** A cohort Markov process model with five health states: stent, coronary artery bypass surgery (CABG), non-fatal myocardial infarction (MI), percutaneous coronary intervention (PCI) and death was derived from published data. The transition probabilities from the index procedure to death, MI, PCI, and CABG were derived from an updated, previously published meta-analysis of RCTs comparing DES with BMS in patients with coronary artery disease. Relative risk reduction, restenosis risks, mortality rates, utilities were derived using published sources. Direct Medical costs were obtained from 4 top-rated cardiology hospitals in Egypt. All costs and effects were discounted at 3.5% annually. All costs were reported in Egyptian pounds of the financial year 2013. Deterministic sensitivity analysis was conducted. **RESULTS:** In the overall population, total costs for DES and BMS were 20,664 EGP and 11,957 EGP respectively. Total QALYs for DES and BMS were 2.26 and 2.05 respectively. The incremental cost-effectiveness ratio (ICER) for DES versus BMS was 41,616 EGP/QALY. DES is cost effective because it is less than 3 times GDP/capita in Egypt (57,566 EGP). Results between DES and BMS were most sensitive to the Mortality rate of both DES and BMS. **CONCLUSIONS:** World Health Organization recommends that interventions that cost more than 3 times GDP/capita for one Disability Adjusted Life Year (DALY) avoided should not be reimbursed. Despite DALY is different from QALY but we can assume that they are similar to be able to put a value on the outcome. DES represents a good value for money compared to BMS in Egyptian diabetic patients with chronic coronary artery disease.

PCV109

COST-UTILITY ANALYSIS OF CORONARY ARTERY CALCIUM SCORE TO GUIDE STATIN THERAPY IN PATIENTS WITH ELEVATED C-REACTIVE PROTEIN AND LOW LDL CHOLESTEROL LEVELS

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OBJECTIVES: Using statins in primary prevention is controversial given the low event rate and the difficulty to identify patients who really benefit. Coronary calcium score has been identified as a strong predictor of cardiovascular events, being recommended for risk stratification in intermediate risk individuals. This study aims to assess, from the Portuguese societal perspective, the cost-utility of determining coronary calcium score to guide the use of statins in individuals with elevated C-reactive protein and low LDL cholesterol. Three strategies are compared: no treatment, test and treat accordingly, and treat every patient with rosuvastatin 20mg. **METHODS:**